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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,287	11/13/2000	Klaus Gradischnig	SIEM0017U/US	3477

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NEIFELD IP LAW, PC
2001 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VA 22202

EXAMINER

BRUCKART, BENJAMIN R

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 04/23/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/700,287

Applicant(s)

GRADISCHNIG, KLAUS

Examiner

Benjamin R Bruckart

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Claims 10-22 are pending in this Office Action.

Claims 10, 11, and 16, 17-18 remain rejected under 35 U.S.C. 102(b) as being unpatentable over U.S. Patent No. 5,583,848 by Glitho (Applicant IDS).

Claims 19-22 are rejected under 35 U.S.C. 102(b) as being unpatentable over U.S. Patent No. 5,583,848 by Glitho (Applicant IDS).

Response to Arguments

Regarding claims 10-18, applicant's arguments filed in the amendment filed March 25, 2004, Paper No. 12, have been fully considered but they are not persuasive. The reasons are set forth below.

Regarding claims 19-22, applicant's arguments based on claims 19-22 are rejected under the same grounds of rejection as 10-18.

Applicant's invention as claimed:

Claims 10, 11, and 16, 17-22 are rejected under 35 U.S.C. 102(b) as being unpatentable over U.S. Patent No. 5,583,848 by Glitho (Applicant IDS).

Regarding claim 10, a method for signaling in a signaling transfer point (Glitho: col. 1, lines 24-29, lines 10-12), comprising the steps of:

routing signaling messages from source signaling points in a direction toward destination signaling points (Glitho: col. 3, lines 3-5);

checking at least one of a presence of a loop (Glitho: col. 6, lines 29-47) and a possibility of the presence of the loop (Glitho: col. 6, lines 44-47) over a departing link set by at least one of a routing test (Glitho: col. 3, lines 17-21) and a real time method (Glitho: col. 6, lines 24-27); and

automatically withholding a transfer of said signaling messages via a pertinent linkset to upon a positive check result outcome of said checking step (Glitho: col. 6, lines 3-6, lines 19-47).

Regarding claim 11, a method according to claim 10, further comprising the steps of:

sending test messages via a link set to destinations that said linkset can reach upon said positive check result outcome (Glitho: col. 3, lines 3-5); and

automatically withholding transfer of said signaling messages to a destination that had returning test messages upon return of said test messages (Glitho: col. 6, lines 3-6, lines 19-47).

Regarding claim 16, a method according to claim 10, further comprising the step of:

checking a new current route for absence of loops in the signaling transfer point, immediately after blocking; a linkset in said loop (Glitho: col. 5, lines 37-55; the routing information gathered from primary then secondary links).

Regarding claim 17, a signaling system of a signaling transfer point (Glitho: col. 1, lines 24-29, lines 10-12), comprising:

a checker for detection (Glitho: col. 6, lines 19-27) of at least a loop (Glitho: col. 6, lines 29-27) or a possibility of a presence of said loop (Glitho: col. 6, lines 44-47) over a departing linkset to a destination signaling point (Glitho: col. 6, lines 44-47), said checker utilizes at least one of a routing test (Glitho: col. 3, lines 17-21) and a real time method (Glitho: col. 3, lines 17-21), wherein when a positive check result outcome is obtained transfer of signaling messages via pertinent linksets are automatically withheld (Glitho: col. 6, lines 3-6).

Regarding claim 18, a signaling system according to claim 17, further comprising:

a verifier for detection of said possibility of the presence of said loop (Glitho: col. 3, lines 17-21; col. 6, lines 44-47), said verifier sends test messages to destinations reachable via said departing linkset before said signaling (Glitho: col. 3, lines 17-21) system withholds said transfer of signaling messages to a destination for which said test messages return (Glitho: col. 6, lines 3-6).

Regarding claim 19, the method of claim 10, wherein said checking is by a routing test (Glitho: col. 3, lines 17-21).

Regarding claim 20, the method of claim 10, wherein said checking is by a real time method (col. 6, lines 24-27 show it tests with live data, which is real time data).

Regarding claim 21, the signaling system of claim 17, wherein said checking utilizes a routing test (Glitho: col. 3, lines 17-21).

Regarding claim 22, the signaling system of claim 17, wherein said checking utilizes a real time method (col. 6, lines 24-27 show it tests with live data, which is real time data).

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,583,848 by Glitho (Applicant IDS) in view of U.S. Patent No. 6,044,402 by Jacobson et al.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,583,848 by Glitho (Applicant IDS) in view of U.S. Patent No. 5,014,262 by Harshavardhana.

Regarding claim 12,

The Glitho reference teaches a system of testing routing paths before sending data.

The Glitho reference does not explicitly state the blocking of packets based on destination and port.

The Jacobson reference teaches a method according to claim 10, further comprising the step of withholding transfer of said signaling messages to downstream pertinent destinations by blocking a specific departing link set of said pertinent destination in a routing table of said signaling transfer point (Jacobson: col. 13, lines 20-25; lines 56-59).

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The Jacobson reference further teaches the network connection blocker combines routing packets with a blocking module to decrease the number of devices in a network, which can act as bottlenecks and can be vulnerable to attack (Jacobson: col. 2, lines 7-15; col. 1, lines 55-64).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create the system of checking signal transfer source and destination paths for loops before sending data as taught by Glitho while blocking packets based on destination and port as taught by Jacobson to decrease the number of devices in a network which can act as bottlenecks and can be vulnerable to attack (Jacobson: col. 2, lines 7-15; col. 1, lines 55-64).

Claim 13 is rejected under the same rationale given above. In the rejections set fourth, the examiner will address the additional limitations and point to the relevant teachings of Glitho and Jacobson et al.

Regarding claim 13, a method according to claim 10, further comprising the step of:

withholding transfer of said signaling messages to upstream pertinent destinations via the pertinent link set by sending transfer prohibiting messages by the signaling transfer point regarding a destination signaling point to a preceding signaling transfer point (Jacobson: col. 13, lines 20-25; lines 56-59), where upon said preceding signaling transfer point will at least perform one of a functions of rerouting traffic to the destination signaling point and stopping said traffic to the destination signaling point (Jacobson: col. 13, lines 20-25; lines 56-59; col. 3, lines 41-56).

Regarding claim 14,

The Giltho reference teaches a system of testing routing paths before sending data.

The Glitho reference does not explicitly state the breaking out of a loop.

The Harshavardhana reference teaches a method according to claim 10, further comprising the step of: controlling an interruption of said loop by an operations maintenance and administration part (Harshavardhana: col. 2, lines 42- 51; col. 12, lines 60-63).

The Harshavardhana reference further teaches breaking out of loops prevents network inefficiencies like the tying up all the virtual circuits available and requiring retransmission, or traveling through too many switching nodes, or causing the network to be unreachable.

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create the system of checking signal transfer source and destination paths for loops before sending data as taught by Glitho while providing a means to break out of loops as taught by Harshavardhana in order to increase network efficiency by avoiding tying up all the virtual circuits available and requiring retransmission, or traveling through too many switching nodes, or causing the network to be unreachable.

Claim 15 is rejected under the same rationale given above. In the rejections set fourth, the examiner will address the additional limitations and point to the relevant teachings of Glitho and Harshavardhana.

Regarding claim 15, a method according to claim 10, further comprising the step of:

controlling an interruption of said loop by a message transfer part (Harshavardhana: col. 2, lines 42- 51; col. 12, lines 7-12; lines 23-24).

The Applicant Argues:

With respect to claim 10, applicant argues the Glitho teaches away from “automatically withholding a transfer of said signally messages via a pertinent link set upon a positive check result outcome of said checking step.”

In response, the examiner respectfully submits:

Applicant points to the specification of the claim invention as basis for Glitho teaching away from claims. The examiner suggests referring to claim limitations or teachings of the claims to show teaching away.

The examiner also asserts that in the claimed language “checking at least one of a presence of a loop and a possibility of the presence of the loop over a departing link set by at least one of a routing test and real time method” is determined to be checking for the presence of a loop or the possibility of the presence of the loop by either a routing test or a real time method. The Glitho reference does teach all of these limitations in, col. 6, lines 29-47 shows testing for a loop or the possibility of the presence of the loop; col. 3, lines 17-21 show “test actual routing information”; a real time method col. 6, lines 24-27 show it tests with live data, which is real time data.

With respect to claim 10 and 17, applicant argues the Glitho reference does not teach or suggest “automatically withholding a transfer of said signally messages via a pertinent linkset upon a positive check result outcome of said checking step.”

In response, the examiner respectfully submits:

The Glitho reference is drawn to a system that tests routes between nodes in search for faults or failures (col. 4, lines 29, 31-32; col. 6, lines 19-24). The Glitho reference teaches testing between a source and destination node (col. 6, lines 33-36). The Glitho reference shows when testing a pertinent link set (a route or specific line of nodes for a packet to travel) when a problem occurs, the packet is re-routed along an alternative or secondary link set (col. 4, lines 38-45). In summation, the pertinent link set would be the primary or tested path (source to destination) and withholding of packets is the re-direction away from that path in the event of an error or fault or a “positive outcome of said checking step.” The cited reference col. 6, lines 3-6 is further explained through this interpretation. It does state “no live signals or messages are sent through the SS7 network” but does not mention the conditions. The examiner has explained the conditions as interpreted above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

With regards to claims 19-22, applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin R Bruckart whose telephone number is (703) 305-0324. The examiner can normally be reached on 8:00-5:30PM with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (703) 308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Benjamin R Bruckart
Examiner
Art Unit 2155
Brb
April 25, 2004

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